114 arch St. J. 120

An Essay ad eund of
on the Bowdoin
Caesarian Operation;
submitted to the 1829
Medical Faculty
of the
University of Pennsylvania
as an
Inaugural Thesis
for obtaining the degree of
Doctor of Medicine.

By Israel Bailey Bradley
of Maine.

Medical science has, at no period, made more rapid advances than since the commencement of the present century. The different branches of it have not, perhaps, advanced with equal rapidity; but no one of them has stood still. Some additions have been made to descriptive anatomy; and, notwithstanding the achievements of Bichat, General Anatomy has received no less improvement. But much the most has been accomplished in pathological anatomy. Many have cultivated physiology with great zeal and with a correspondent success. Surgery has received such numerous improvements, that some suppose it has made greater advances than any other department of medical science. However numerous & important they may be, it must be conceded, that a very honorable share of them, whether we regard their number or importance, belong to the Philadelphia Medical school. Chemistry, within the period above mentioned, has almost become a new science. Materia Medica has been greatly improved, by the addition of new articles, by acquiring a better knowledge of the powers of those already in use, both as re-

gards

-gards their compatibilities with each other, and their proper ap-
-plication. This department is greatly indebted to pharmaceu-
-tical Chemistry, for the recent discovery of some remedies
in the vegetable kingdom, of the greatest value on ~~on~~
account of their efficiency and convenient form.

Medical Jurisprudence was scarcely known, as a depart-
ment of medical science, at the close of the last century.
While such great improvements were making in other branch-
es, it was not posible for the practice of medicine and Mid-
wifery to stand still. How much of this progress in the va-
-rious branches is due to the medical profession of the United
States, I have not now the time, if I had the materials,
for instituting the inquiry. But they are unquestionably
numerous and important; and some of them have been
heretofore alluded in a most eloquent manner by one
of the Professors of this University.

Upon a review of the progress of medicine it will be
seen, that the improvements have not been such a
simplification of it, as to demand less study to acquire
a competent knowledge of it. The treatment may, perhaps, be

be regarded as more simple and more certain; but the study of structure and function has of late opened a relative importance, and demanded an attention, to which it did not before claim. A knowledge of structure and function, and of chemical laws and phenomena, constitute the groundwork and the frame of medical erudition.

Although it may be convenient, in populous communities, so far to divide the practice of the healing art, that individuals may devote themselves to a particular branch, it must steadily be kept in view, that there is a mutual dependance among all the branches of medical science. The medical practitioner, who is ignorant of any one of them, will often find himself in the predicament of a mathematician, who is desirous of finding some unknown number, but whose efforts are unavailing for the want of some apparently trivial known one or datum.

The foregoing remarks have been suggested by the subject, which I have selected for the Thesis, which I am about to offer, with much diffidence, for your acceptance. When it is considered, that midwifery has so often been

regarded as an ignoble art, and abandoned to ill women, the idea might present itself that one of its operations, the most unfrequently performed, would present few, or no interesting points for discussion. But notwithstanding these considerations, it seems to me that the Caesarian Operation presents some topics of the greatest interest, with respect both to structure and function.

Perhaps it is not easy to explain why so many surgeons feel a reluctance to interfere in those cases, where the patient lies between life and death, when, without their timely interference, death is inevitable, while with it there is a possibility, I might say probability, of recovery. Although this operation is very rarely necessary, there are cases occurring in our country every year, in which one and possibly two lives might be preserved by resorting to it; and if we can assign any reason, why there is hardly a physician or Surgeon in the United states, who does not neglect to resort to it, when he is convinced there is no other resource left him to save the life of either mother or child, must it not be ascribed

to

to the circumstance, that British writers have been, until lately, the only authorities referred to by a great mass of the Surgeons and Physicians of this country?
If this be the case, it ceases to be a matter of surprise, that this operation should never be attempted, when we are told by one of those writers, that this operation is "inevitable destruction to the woman" and by another, which has been, until recently, the principal textbook of this country, that "every woman, for whom the Cæsarian operation can be proposed to be performed, will probably die; and should any one survive, her recovery might be considered as an escape, rather than a recovery to be expected" and then to see these opinions sustained by the success of the British operators. There is not one of our country Physicians or Surgeons, who, deprived of the benefit of numerous and able counsellors, and with such opinions and such ill success staring him in the face, would not consider it rashness in him to undertake that, in which so many have failed. He would probably sooner attempt to tear away the foetus piecemeal (as has been done) with the imminent

hazard

hazard of destroying the mother also. The works of our own authors are, however, obtaining a greater circulation, and the propriety, danger, and success of this operation will be received in its true light:

The necessity of the Caesarian operation arises principally from extreme deformity of the pelvis caused by Rachitis, or Malacosteon, and may also be rendered necessary by exostoses, and by tumours occupying the cavity of the pelvis. For a full exposition of these causes, See Dewees Midwifery. P. 28. James's Burns P. 30 and Francis's Denman p. 421

Authors do not agree as to the extent of deformity requiring this operation. Dr James says "it must, to a certain extent, be modified by the dexterity of the operator". Dr Burns lays it down as an axiom, that the child cannot be delivered by the crotchet; when the short diameter of the pelvis is less than one inch and three quarters, and the long fully three inches, and he admits that it is questionable, whether, in this extreme degree of deformity, the Caesarian operation would not be attended with less danger to the mother. Dr Dewees considers it impossible to deliver by the

crotchet

when the antero-posterior diameter is less than two inches, and the transverse less than three and a half; and thinks that the employment of the crotchet, when the antero posterior diameter is less than two and a half inches, is as hazardous to the mother as the Caesarian operation; yet, were the child dead, he would employ the crotchet. But even were the child dead, and the antero posterior diameter less than two inches, he would be in favour of the Caesarian operation. Dr Dewees then discusses the question "in those extreme cases of deformity, which require the use of the crotchet for their termination, by which of the two operations the patient and society will be most benefitted." After deliberately considering all the points, the inevitable destruction of the child by the one, the comparative danger of both to the mother; together with the uncertainty of being able to deliver the child by the crotchet after it is destroyed, and successfully, as I think, combatting all the arguments against the Caesarian operation, he decides in favour of it. I should do injustice to this argument of Dr Dewees, should I attempt to make an abstract from

from it. I must, therefore, refer the reader to his work P. 570. In this opinion Dr. Dewees is supported by most of the continental authors. Gardien, mentions, that Boyer and other judicious practitioners had witnessed repeatedly the mutilation and extraction of the child by eminent men, but the mother sunk immediately. In two of these cases the uterus was ruptured. But what has been the comparative success of the crotchet, (I mean when it is imperiously demanded) compared with the Caesarian operation? If we refer to the continental practitioners, they tell us the crotchet hardly ever succeeds in saving either mother or child, whereas the Caesarian operation, in considerably more than half the cases, preserves both lives, and, in almost all, it preserves one. I have heard of three or four cases in the Eastern States, where it was deemed necessary to employ the crotchet, but without success. It is unnecessary to enquire respecting the comparative success of the two operations among the British practitioners, as it is hardly ~~utterly~~ impossible, that the use of the crotchet or guillotine should be more fatal than the Caesarian operation has been.

Speaking of the success of this operation, a writer in Johnson's Medico Chirurgical Review (Vol IV. New Series. P. 478.) says. "Kellie, who was a very industrious physician and careful compiler, found that of eighty two Caesarian operations, performed between 1500 and 1764, the period in which the lateral operation prevailed, only six proved fatal, or one case in every thirteen and a third. But this country, the success has been very little, and if we except Mr Barlow's case of Chorley, we are not acquainted with one, which terminated in the preservation of the mother, although the operation has been performed eighteen times". "Dr Kellie, who published ~~has published~~ the result of his inquiries into the mortality of this operation, in Vol V. of the Edinburgh Medical and surgical Journal, found that, out of 231 cases scattered about in the records of Surgery, 139 were said to have terminated successfully. The operation has, during the year 1825, been performed in Germany thrice with success; once by Dr Schenk a condensed history of which case is subjoined; once by Professor Graefe, a surgeon of great enterprise and talent at Berlin; and lastly, by Mende the successor of Osiander and professor of midwifery at Gottingen. The two last cases are not yet published

published; they will be inserted in the next number of this Journal. Within the same period, the histories of six unfortunate cases have made their appearance, three in Siebold's Journal fur Geburtshulfe, &c. and three in Mende's Obstetric Journal, which have a very favourable quotient on the successful side. If we take the number of unfortunate cases that are published, and allow half that number for the cases not published, and then compare these with the successful cases, which we may be certain always make their appearance, we shall find the proportion of the fortunate to the unfortunate will be about one in ten. Such is the result of a careful examination of the published documents up to the present time, and of many extended enquiries, which we have instituted on this subject."

Now I am at a loss to know by what method of mathematical calculation the writer arrived at this result. Applying his rule to the 3 successful and 6 unsuccessful cases I should make the proportion of the fortunate to the unfortunate, 1 in 4, and taking the 231 cases mentioned, as 5 to 3. In the 82 cases collected by Klein as 9 and $\frac{2}{5}$ to 1,

and

and I have been able to collect from the various journals published since the year 1817, 26 successful cases, one of which was self performed when there were twins; another when mother and twins were saved, and in one patient the operation was performed twice successfully. Within the same period, I find 3 unsuccessful cases. The fatal result of one of these is ascribed to the operation being delayed for five days from the commencement of labour, by which, according to the operator, (Dr Seidler) "the powers of the mother were exhausted; which prevented the uterus from contracting reasonably, and thence resulted sanguineous effusion into the abdomen". If I am correct in this collection, it will give the ratio of fortunate to the unfortunate as 6 to 1.

Now can it be denied, that this success is as great or greater than in many other capital operations? Is it not far greater than delivery by the crotchet? We are not half as successful in fractures of the cranium, when it is necessary to trephine, yet no surgeon of any tact, or decision, hesitates to perform this last when necessary. And Why? because it

is

is an established operation. It is one of acknowledged ne-
cessity—necessary to preserve, I might say to restore, the life of
the patient. But I may ask, is not the patient, who de-
mands the use of the crotchet in the Caesarean operation
in as precarious a situation, as the one with the de-
pressed cranium? And is not the chance of recovery
from the first at least as probable as from the second?
Professor Gibson once observed, in conversation, that it was
not likely more than one in ten recovered from fractures
of the cranium, where it is necessary to trephine. If, upon
careful inquiry, this should be found to be the fact, I
cannot conceive why the Caesarian section should not
be considered as an established operation, as well as the
other, since it is evidently more successful. Furthermore,
perhaps we may rate the success of the Caesarian operation
higher than we have done, for it does not seem to me
probable, that a number equal to one half of the un-
successful cases reported, would be withheld from the
publick; because the operation has been considered so
appalling and fatal, that any surgeon, who suspected

sus-

sufficient skill and resolution to prompt him to undertake it; would give it to the publick whether successful or otherwise.

As the necessity of resorting to this terrible operation is so justly dreaded, I shall make some remarks upon the danger attending it. The hazard of it is alledged to consist, first, in the danger of peritoneal inflammation, and secondly in the danger of hemorrhage from the divided arterial vessels. Thirdly, the pain and suffering induced by it is supposed by some to be greater than human nature can sustain. That the danger from peritoneal inflammation is great is indisputable, but that it is as formidable as many surgeons have imagined or is always fatal, is not so evident.

If the inflammation in a part, very susceptible to it, has a tendency to spread itself, the danger from a small wound would be as great as from a larger, and the wound from the trocar in paracentesis would be as dangerous as a larger incision. On the other hand, if there be no such tendency, it cannot be supposed.

supposed, that the inflammation, confined to the edges of a smooth incised wound six or eight inches in length, would be fatal, provided we made use of the best means in our power to prevent or subdue it. From this it seems to me very apparent, that the danger of wounds of a serous membrane is not always proportioned to their extent.

Peritoneal inflammation presents such an extensive field for discussion, that I can not, in this place, pretend to enter into it with any minuteness. But I would observe, in the first place, that simple incised wounds of this membrane, without any complications, are much less dangerous, than they have usually been considered. It must be admitted, that they are seldom unattended with danger, and are often fatal. But the danger and fatality are not usually the direct effects of the wound, but they result from the irritation of some foreign body, which gains access to this membrane through the wound. In wounds of the ~~viscera~~ abdomen some of its viscera are very apt to be wounded and to discharge their contents into the cavity of the peritoneum. If these viscera are not wounded, the chief danger will

arise

arise from the admission of atmospheric air into such wounds. The muscles of the abdomen maintain such a constant pressure upon the abdominal viscera, that there is little probability, that air will, to any considerable extent, gain admission into the peritoneal cavity; but that it may, under some circumstances, can not be doubted.

And it is equally certain, that the long continued admission of atmospheric air will derange the functions of any part, which is not protected by cuticle. Irritation often will, indeed, often spread from an external wound by continuous sympathy to the peritoneum; but it is usually, when the wound is suffered to remain open. This view might be illustrated by cases, and it is corroborated by the doctrine of Mr Abernethy on the treatment of large abscesses.

Upon this point a writer in the North American Medical and Surgical Journal Vol I. P 172, says, "The experiments referred to above, prove, in conjunction with other facts, that the directly stimulating effects of atmospheric air, which contains but a certain portion of oxygen, are but trifling, and yet cannot wholly be denied by any one who

who will, at intervals, expose the cutis denuded of the cuticle, or an inflamed brain, to the influence of the atmospheric air; but the great mischief caused by this fluid, arises from its conducting powers, by which heat and moisture are rapidly conveyed away from the surfaces, which are freely exposed to a current of air, and thus great irritation ensues" Bichat says "if they, (serious membranes) remain a short time exposed, the air inflames them; the organic sensibility is transformed to that of relation. Every contact of a foreign body not only becomes perceptible, but painful to the animal". Again he says "Serous membranes, when they are exposed in a wound, as we see in portions of the intestines torn from the belly of an animal, soon grow cool remain a long time at a low temperature, and do not acquire their ordinary warmth, till inflammation supervenes and re-calls their sensibility". For a full discussion of the effects of admitting atmospheric air to parts not defended by the cuticle, see an essay by Dr Bond, in 2d Vol of Dr Chapman's Journal.

Jl

It must then be admitted, from the preceding considerations, that a certain degree of heat and moisture is necessary for the safety of serous membranes; and that atmospheric air at a temperature equal to, or below, that of the human body will abstract from it both heat and moisture. These views I consider no longer hypothetical, but defensible on chemical and philosophical principles, and they are evidently of no small importance in reference to the Caesarean operation. If it be true, as I shall presently attempt to show, that patients seldom die of haemorrhage after this operation, the fatal result must be ascribed either to peritonitis or to constitutional irritation. Two questions here present themselves, first, How far is peritonitis, in these cases, dependant on the agency of atmospheric air? Second if it does depend much upon this agency, what means shall be used to counteract it?

In reply to these questions, I would observe, that if peritonitis does arise from this cause, it must be in a great measure, the fault of the operator. If he be tedious in the operation, and suffer the wound to be long exposed

and

and much handled, he will probably induce inflammation. If it do not attack the peritoneum primarily, the irritation of the wound may extend to this membrane by continuous sympathy. But there is good reason to believe, that the air can have but little agency in inducing peritonitis, when the operation is performed in a proper manner and in a due time; and the reason is, that the parts exposed within the wound will be protected from the air by the blood poured out by the divided vessels, added to the natural moisture of the parts. I apprehend that it will be found, upon further investigation, that the fatality of this operation depends much less upon any necessary danger in cutting into the uterus through the abdominal parietes, than upon constitutional and local irritation occasioned by delaying the operation until the patient was nearly in articulo mortis, as is said to have been the fact in most of the operations performed in Great Britain.

The second objection, which is urged against the operation, is uterine haemorrhage. Not the least consideration, would be paid to this objection by those, who know any thing of the success or fatality of

of this operation, or who understand the structure and action of the uterus. This objection is put at rest by the very perspicuous and philosophical rationale of the action of the muscular fibres laf the uterus by Dr Dewees in his system of midwifery P. 174. 176; because it must be evident, that, if the uterus be in a state of tonic contraction, the longitudinal fibres, which are the strongest, would more than resist the force exerted upon them by the circular fibres, which tend to retract the edges of the incision, and of course prevent all haemorrhage by keeping the wound firmly closed. I am now supposing the incision to be made immediately under and in a line parallel to the Linea alba. Dr. Dewees also says, (P. 584) "But little blood is lost when the uterus is cut in the centre of its anterior face, unless the placenta be attached there, and even then the discharge is but of short continuance, if this organ contract forcibly". Two cases reported in the fourth volume of Johnson's Med. Chirurg. Reviews confirm the opinion, that there is nothing to be apprehended from haemorrhage.

The

The first was performed by Schenk of Frankfort, Germany. Speaking of the operation, he says, "by the second incision, by the ~~t~~ which was made to perfect the division of the abdominal parietes, the Uterus was cut into, the vessels which were divided immediately contracted within the structure of the Uterus, so that the bleeding was quite insignificant", also "that he made the incision in the uterus between six and seven inches long and cut through a portion of the placenta and yet no artery spouted and only a few ounces of blood were lost. The second case is by Dr Meyer of Minden Prussia. In this case the incision was made nearly six inches in length, from the upper part of the Uterus towards the neck; two thirds of the placenta were was cut through; and although "the vessels haemorrhage, it appeared frightfully large" (to use his own words) no important haemorrhage followed. "Most interesting was it to observe (says Dr M) at this moment, the sudden contraction of the Uterus which quickly diminished to the size of a large goose egg".

There are two other cases recorded in the same journal,

when

where the operator says, "the haemorrhage was slight."

Dr Wood of Manchester also made his incision through the uterus directly upon the placenta. 2nd There was no haemorrhage of importance. Here is sufficient proof, as I think, that the haemorrhage is the least danger we have to fear in performing the Caesarian operation. Of all the numerous cases reported I can find but one where the fatal result is ascribed to haemorrhage; and as this comes from no less authority than Mr Charles Bell, it is deserving of some attention.

"In making sections of the uterus while it retains its natural, muscular contraction, he says, I have been much struck in observing how entirely the bloodvessels were closed and invisible; and how open and distinct the bloodvessels became, when the same portions of the substance of the uterus were distended and relaxed. This fact of the natural contraction of the substance of the uterus closing the smallest pore of the vessels, so that no vessels are to be seen, where we never the less know they are large and numerous, demonstrates that a very

a very principal effect of the muscular action of the womb is the constringing of the very numerous vessels, which supply the placenta, and which must be ruptured when the placenta is seperated from the womb".

He also says, "On the outer surface and lateral part of the womb, the muscular fibres run with an appearance of irregularity among the larger blood vessels; but they are well calculated to constringe the vessels, whenever they shall be excited to contraction".

After giving this account of the muscularity of the uterus, and demonstrating, that a very principal effect of its muscular fibres is to compress the numerous vessels and sinuses, he proceeds to detail an account of the Caesarian operation performed by his brother Mr John Bell. He states that, during the operation, no vessels were seen, nor any haemorrhage occurred; that the foetus was removed and the placenta thrown out by the action of the uterus, that for twenty minutes he compressed the abdomen and uterus between his hands, at the expiration of that time the incision of the integuments was

closed

closed by sutures and adhesive straps, but "that happened which he foresaw would happen when he ceased to compress the uterus"; viz "a fatal haemorrhage".

Mr Bell then describes the appearances on dissection and says "he found the uterus lying, contracted, but the incision gaping, the lips everted and the vessels with open mouths, which during the operation were not apparent." "From the mouths of those vessels the streaming blood had been coagulated and lay in large cakes in the abdomen".

As Mr Bell admits one of the principal effects of the muscular action of the uterus to be to constringe its numerous vessels, so that we cannot see the minutest pore, notwithstanding we know they are large and numerous, I would ask where could he see the necessity of compressing the uterus, and that, when this compression was suspended, a fatal haemorrhage would ensue? He may urge, that it was to bring into contact "the edges of the incision, which were paralysed and everted notwithstanding the tonic contraction of the uterus. To this it

may

may be replied, from his own premises, that if "the" muscular fibres on the outer surface and lateral parts of the womb, which run with an appearance of irregularity among the larger blood vessels, are well calculated to constringe these vessels, whenever they shall be excited to contraction"; that it was of no consequence that the edges of the incision were excited and paralysed, because the contraction of the said "muscular fibres" would prevent the blood, which comes from the Spermatic and Hypogastric arteries, from reaching the edges of the incision. In Dr Meyers case, above cited, the edges of the incision did not approximate, yet there was no haemorrhage and the patient recovered. From this I think we must draw one of two conclusions, viz, that either the operation of Mr Bell was performed when the uterus was relaxed, or which is most probable, secondary haemorrhage ensued from relaxation, which might have been checked by exciting the tonic contraction of the uterus. See Denmans Midwifery P 584.

In this case it is not unlikely, that the patient would

have died from the same cause, haemorhage, if the operation had not been performed and the delivery had been effected in some other way. As this is the only case, which I can find where the woman died from haemorhage, it seems the weight of testimony is against the danger from this source and we may say with Mr Cobper "that whatever arguments may be adduced, it is enough to say in this case; Ab tem experientia facit, exemplo monstrante viam".

The third objection is the great pain and suffering of the patient in the operation. To this it may be answered, that experience does not justify this apprehension. In the cases of Dr's Shenk and Meyer (already quoted) and two others referred to, they say the pain given by the operation was not so much, as that caused by the introduction of the sutures; and in that of Dr Meyer. he says "the patient complained very little of pain during the operation, and assured the operator and her friends afterwards, that of her severe labours, this had been the least painful." and the same patient upon

again

again becoming pregnant, appeared to be rejoiced at the prospect of being again delivered in the same way. This is not very surprising, as the peritoneum is not sensible (according to Bichat) to any impression made upon it, until inflammation supervenes. It is the same with the linea alba. If sensibility of any part be at all dependant upon its supply of nerves, we must suppose, that the sensibility of the uterus, from its great increase in size, is less than it was previous to impregnation; and that the pain dependant on an incision into this organ would not be any greater than into any other muscular part. But in the history of all the cases, when we have a minute description of the operation, the operators concur in saying, that the pain is not great, and generally much less than delivery in the common way.

If then these views of the danger of the Cæsarean operation be correct, we see that it is much less than it has been by many represented.

It may then be enquired, what is the cause of the

Fatality

fatality of the operation among British surgeons? It may be replied to this inquiry, 1.st That the British surgeons delayed to operate, until the efforts of the mother had brought on a predisposition to peritoneal inflammation, or had actually induced it. Dr Chapman thinks peritoneal inflammation may be produced by severe labours, for he says "Commonly I suspect; puerperal fever has its origin in inflammation of the uterus, produced by rudeness or violence in the delivery, which spreads more or less over the peritoneum, according to the vehemence of the attack, and the extent of the predisposition". see Chapmans Therapeutics, last edition P. 126. The same opinion respecting the failure of the operation with the British surgeons, is entertained by Dr Reeves.

2.d They were probably equally backward in overcoming or preventing peritoneal inflammation by the use of the lancet.

In the selection of this subject for my Thesis, it was not my intention, even if the discussion of it had not already become so protracted, to describe the manuel of this operation. But in conclusion I will state

state some general principles, which seem to me naturally deducible from what I have said in the foregoing pages.

1st As it is not difficult to determine, without much delay, in what cases the operation may be necessary, it should not be deferred until the system becomes exhausted and irritable, and any wounded part is predisposed to take on diseased action. After long continued and violent action of the uterus and abdominal muscles, there would be a greatly augmented danger of peritonitis. On the other hand the operation should not be undertaken, even if its propriety be decided, until the uterus begins to act strongly. In this case, the uterus will be more likely to contract so as to preclude the danger of haemorrhage. If the operation be deferred until the patient is exhausted, in addition to the danger of inflammation, we shall encounter the danger of haemorrhage, as the uterus may be so exhausted, as to remain relaxed after the removal of the foetus and secundines.

2d As there is less danger from a clean incision, than from the laceration, straining and rude handling of a part,

part, the incision should be sufficiently large to allow the passage of the child without any violence to the parts through which it passes. If the incision be too small, it will increase both the danger and suffering of the patient.

3ly As every raw surface, and especially serous membranes are apt to suffer from exposure to a dry air, of a temperature differing much from their own, it would probably have some effect in lessening the danger of inflammation, to perform the operation in a room, whose temperature should be such, as not to feel chilly to the naked body, and in air saturated by aqueous vapour. Although this would not have a great influence upon the result of the operation, when performed with dexterity, in making the proposition, I think I am supported by Dr Dewees, who says, "attention should be paid to the smallest circumstance, if it contribute to render an operation of such consequence less fatal".

4ly As the chief dangers to be dreaded in this operation are peritonitis and haemorrhage, in selecting the place

place and mode of making the incision, we must keep these two dangers in view. We should aim to do the least possible violence to the peritoneum, and to avoid if possible cutting through the placenta and large uterine arteries, Two methods have been of late proposed for making the incision in such a manner, as to entirely avoid wounding the peritoneum. M. Baudelogue junior, in the Journal universal for July 1824. has proposed a method, which has been called "a substitute for the Cæsarian section". The operation of M. Baudelogue has been pronounced, and it seems to me with justice, "difficult, complicated and impracticable". See Johnson's Review for April 1825. —
In Dewees' midwifery, another method of performing this operation is proposed by Dr Physick, which is much more simple, and, if the peritoneum can "be stripped from the fundus of the bladder", as he proposes, must possess some decided advantages over every other mode of operating. The first advantage, (which is the only one claimed for it) is, that it shuns the danger of peritonitis by avoiding the wounding of the peritoneum. A second advantage is, as it would seem to me,

that,

that the incision is made through the uterus, where the placenta is least apt to be attached; and where the principal trunks of the uterine artery are least liable to be encountered.

5th. A rigid depletory and antiphlogistic treatment, after the operation, are very obviously indicated.